A Comparison of the Effects of The Activity Approach and the Conventional Approach of Teaching on the School-Related Attitudes of the Primary School Pupils in Hong Kong

by

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ABSTRACT

The purpose of this study was to compare the effectiveness of the Activity Approach and the Conventional Approach of teaching in fostering the positive school-related attitudes of the Hong Kong primary school pupils. An instrument based on the Semantic Differential Technique was developed to measure the attitudes toward school, teacher, classmate, attending lesson, homework and school subject of 684 boys and girls at the levels of Primary Three, Four and Five in three types of primary schools. The validity and reliability of the instrument were found satisfactory. The statistical technique of two-way analysis of variance was used to draw inference on the research problems. A few of significant differences in the school-related attitudes were found but there was lack of sufficient evidence to justify the superiority of either the Activity Approach or the Conventional Approach in fostering the positive school-related attitudes at the levels of Primary Three, Four and five. The effectiveness of the Activity Approach even dropped for pupils at higher levels Primary Four and Primary Five. On the average the pupils had positive attitudes toward the school-related subjects and the general trend of declination of attitudes in higher levels was not detected. The girls had more positive attitudes in the Conventional Approach schools. The pupils' work load and academic attainment had significant but very weak relationships with some school-related attitudes.

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CHAPTER I

INTRODUCTION

Background of the Problem

In Hong Kong all the children have to undergo nine years of compulsory education since 1978. This includes six years of primary education and three years of junior secondary education. Some of the primary schools are run by government. They are called the government primary schools. The others are run by the religious parties or by the other organizations. Most of them are supported financially by the government. They are the government subsidised primary schools. The private primary schools are those run by the organizations independently.

The curriculum for the Hong Kong primary schools had little change for a long period until in 1972 the Curriculum Development Committee (CDC) was established by the Hong Kong Government Education Department to initiate the reform. The new Activity Approach was soon introduced by the Committee and six primary schools were selected to experiment on this approach in that year.

As Lau (1980) mentioned in his "Introduction to Activity Approach", this approach aimed at enhancing the active and free participations of the pupils and encouraging vital interactions between teachers and pupils, and among pupils themselves during the learning process. This approach was regarded as to encourage learning by doing, to foster in pupils the analytical and expressive abilities, and to stimulate pupils' interests in learning various materials. The goals of the Activity Approach (AA) were specified by CDC in 1975 as follows.

1. To adopt a less formal approach to learning in primary schools.

2. To encourage learning by doing through purposeful activities conducive to the full development of the individual child.

3. To provide a stimulating environment to promote self-initiated learning.

4. To ensure that the teacher's role in the learning process is to guide rather than to instruct.

5. To provide opportunities for children to learn at their own pace according to their own ability.

6. To relate children's daily experiences to their learning environment inside and outside the classroom.

7. To make the school a happy place for children.

In fact, the practice similar to the Activity Approach is not new in the Western World. After Kilpatrich's (1918) dictum that "education be considered as life itself and not as a mere preparation for later living", an active discovery-based teaching style has been experimenting by many elementary schools in the United States. Although this teaching style has not been as successful as expected, it has been considered to achieve more educational aims than the blamed conventional style of teaching in which a teacher-centred, non-activity mode is dominated.

In the fifties of this century, the advocates of this new approach put forward the ungraded school system and named it "open education". This education movement was growing rapidly after then. The open education was defined by Stephens (1974) as followed.

> Open education is an approach to education that is open to change, to new ideas, to curriculum, to scheduling, to use of space, to honest expression of feeling between teacher and pupil and between pupil and pupil, and open to children's participation in significant decision-making in the classroom. Open education is characterised by a classroom in which there is a minimum of teaching to the class as a whole, in which provision is made for children to pursue individual interests and to be actively involved with materials, and in which children are trusted to direct many aspects of their own learning.

In the United Kingdom, the process of change from the traditional approach to the new approach was slow even after the issue of the Hadow Report (1931) on primary education which promulgated the Dewey's philosophy. However the current was speeded up by the Plowden Report (1967) which reiterated the assertion of the Hadow Report that "the curriculum is to be thought of in terms of activity and experience rather than knowledge to be acquired and facts to be stored." The open education in the United States was taken as a model although the British educators named their practice "informal education" or "progressive education".

The curriculum reform in Hong Kong started late when compared with the trend. In Hong Kong, after a year of experimenting with the less formal, more child-centred and activity-oriented approach by six pilot schools, all primary schools were invited to opt for this new approach. In order to make this approach more attractive and acceptable, special financial support was promised, and special courses and workshops for the teachers were conducted. In addition, the three teacher training institutes, Northcote College of Education, Grantham College

of Education and Sir Robert Black College of Education began to provide training of their student teachers on this approach. Recently a smaller size of class, 35 students per class, was required for the new approach as compared to 45 students per class for the conventional approach. Since 1974 the number of Activity Approach classes increased steadily. There were 70 Activity Approach classes in 10 primary schools in 1974-1975 and 473 Activity Approach classes in 67 primary schools in 1979-1980. The schools who have Activity Approach classes include government, subsidized and private schools. All of them have the Activity Approach class in the first and second primary years and most have the Activity Approach classes in the third year except one who has the Activity Approach classes up to the sixth, or final year. In the great majority of the above mentioned schools, the pupils in the higher levels undergo the conventional teaching approach. Namely, the pupils' primary education is divided to two stages. They undergo two or three years of the Activity Approach at the first stage and undergo three or four years of Conventional Approach at the second stage. The author names their schools the Transitional Schools. The exceptional one school is named the Activity School.

In 1981, as revealed in the White Paper on primary education and pre-primary services, the Hong Kong Government intended to further expand the number of the Transitional Schools by five times in the year of 1985-1986, and to allocate an amount of 1.5 million Hong Kong dollars to support this expansion. As we can see, the Hong Kong Government is serious and enthusiastic in promoting this approach.

However, the Activity Approach adopted here is not a complete copy of the open education in the Western World. Most of the Transitional Schools in Hong Kong are half-day schools. They have only the

morning session or the afternoon session. The ratio of teacher to class is low. They have only 1.2 teachers for one class. Consequently, there will hardly be sufficient free periods for the teachers to prepare the new teaching materials. There will hardly be free periods for the teachers to arrange in-depth diagnostic test and individualized guidance for their pupils. The varieties of the textbooks and reference books designed for the Activity Approach are limited in the Hong Kong market. Hence the following questions are being asked about this new approach: "Is it worthy to invest so large an amount of money in promoting this approach?" "Is Activity Approach more effective in improving the pupils' academic achievement and social development?", "Can Activity Approach really achieve its well defined goals?" Since Benjamin Chan (1980) in his study has answered the questions about the effectiveness of the Activity Approach in Hong Kong on the academic and social-emotional attainments, the author intends to investigate in this study the effectiveness of the Activity Approach on fostering the positive school-related attitudes of the pupils, which are important elements in the success of the Activity Approach, and to investigate the degree of retention of these school-related attitudes.

Purpose of the Study

This study aims to compare the effectivenesses of the Activity Approach and the Conventional Approach of teaching on the school-related attitudes of the Hong Kong primary school pupils, and to investigate the change of the school-related attitudes of pupils moving from the lower primary level to the higher primary level. In addition, this study is to investigate the relationships between the above school-related attitudes

and academic attainment, and between the above school-related attitudes and homework time.

Research Problems

1. Are there any significant differences in the school-related attitudes among the Primary Three pupils in the Conventional School, Transitional School and Activity School?

2. Are there any significant differences in the school-related attitudes among the Primary Four pupils in the Conventional School, Transitional School and Activity School?

3. Are there any significant differences in the school-related attitudes among the Primary Five pupils in the Conventional School, Transitional School and Activity School?

4. Are there any significant differences in the school-related attitudes among the Primary Three, Primary Four and Primary Five pupils of the Conventional School?

5. Are there any significant differences in the school-related attitudes among the Primary Three, Primary Four and Primary Five pupils of the Transitional School?

6. Are there any significant differences in the school-related attitudes among the Primary Three, Primary Four and Primary Five pupils of the Activity School.

7. Are there any significant correlations between the school-related attitudes and the homework time?

8. Are there any significant correlations between the school-related attitudes and the academic attainment?

Definitions of Terms

1. Activity Approach (AA) - A style of teaching which has the following characteristics. (a) Classroom management: Students are sitting in groups. They may move around to collect learning materials or to do projects under the supervision of the teachers. (b) Classroom facilities: In classroom there should be enough space for display purposes. The space displays both the students' work and teachers' teaching materials. (c) Teaching channels: Teachers employ group teaching, group working and individualised guidance. Students learn by observation and learn by doing other than the traditional teaching and learning process. (d) Teaching schemes: The teaching schemes of social studies, natural science and health education are organised so that the teaching is always around some planned topics. (See Appendix II: General requirement of AA)

2. Conventional Approach (CA) - A style or styles of teaching characterised by teacher dominance and a uniform patterning of learning and teaching.

3. Attitudes - A learned internal state which influences choices of personal action towards some category of persons, objects or events.

4. School-related Attitudes (SA) - The attitudes of pupils toward six school-related stimuli, namely, my school, my teacher, my classmate, attending lesson, homework and school subject.

5. Academic Attainment - The grand average score gained by a pupil in the first school term.

6. Homework Time - The average length of time used per day in doing homework reported by a pupil.

7. Conventional School (CS) - A school which adopts CA from Primary One to Primary Six.

8. Transitional School (TS) - A school which adopts AA from Primary One to Primary Three and adopts CA from Primary Four to Primary Five.

9. Activity School (AS) - A school which adopts AA from Primary One to Primary Six.

Limitations

The present study is limited to the following :

1. Some Hong Kong kindergartens adopt the activity-based teaching approach and some do not. The different pre-primary education may affect the school-related attitudes of the primary school pupils. It was assumed that the retention of the influence of the pre-primary education on the school-related attitudes was low so that no attempt was made to trace the kindergarten education of the primary school pupils in this study.

2. Many extraneous events like the emotional behaviour of a teacher, a strict punishment on a class etc. might cause temporary effects on the school-related attitudes of the pupils and hence affect the result of the study. It was assumed that the effects caused by these events were minor to the whole teaching approach. Hence, in this study no effort was made to estimate their effects on the test result.

3. The Primary Five pupils in the Activity School did not undergo the Activity Approach when they were in Primary Four because the school discontinued to run the Activity Approach at the higher levels from Primary Four to Primary Six in one year before. The school-related

attitudes of these Primary Five pupils were not purely fostered by the Activity Approach because they indeed have experienced one year's practice of the Conventional Approach. It is desirable to pay special attention when interpreting the study result related to these students.

4. The schools involved in this study are rather prestigious primary schools while their pupils come from the lower and middle class families. The study result may not be generalized to other primary schools which have different standing or with pupils from the families of other classes.

CHAPTER II

LITERATURE REVIEW

Measurement of Attitudes in Primary School

Staats and Staats (1958) claimed that the establishment of attitudes was merely a classical conditioning process. Some others (Kerlinger, 1967; Rokeach, 1968) asserted that an attitude, as different from a trait, was an organized predisposition to think, feel, perceive and behave toward a referent or cognitive object. Gagne (1977) had a similar definition. He defined attitude as "a learned internal state which influences choices of personal action toward some category of persons, objects or events."

Croucher and Reid (1982) stated that the number of the studies on the cognitive performance was much larger than that on the influence of affective variables in lower grades. They interpreted that the reasons for this imbalance might be attributed to difficulties inherent in producing valid and reliable measures for the young children. As this present study aims to measure the attitudes of young children, an identification of a type of reliable instruments would be desirable.

Three major types of attitude tests mentioned by Kerlinger (1973) are: summated rating scales, equal appearing interval scales and cumulative (or Guttman) scales. A summated rating scale is a set of attitude items all of which carry the same weight, and to each of which subjects respond with degr > of agreement or disagreement. The scores of the items are summed to yield an individual's score. As for equal appearing interval scales and cumulative scales, the items carry different

weights and the scoring procedures are more complicated. Of the three types of scales, the summated rating scale happens to be the most commonly used in research. Comparing with the items in the other two scales, the items in the summated rating scales can be made very simple. In order to measure the attitude of very young children, the agree, neutral and disagree responses to the items may be represented even by the smiling, indifferent and sad faces. One of the examples is a measure developed by Haladyna and Thomas (1979) to determine the attitudes of the children in grade one to grade eight toward school and subjects. Each scale in the measure was based on those facial responses to five items. For measuring attitudes toward maths, say, the scale takes the form as follows.

What face do you wear

1. When it is time for maths?
2. During it is time for maths?
3. When maths is over?
4. When you are doing something in maths?
5. If you never had to go to maths again?

Internal consistency of these item subscales ranges between .61 to .89. The items are subjected to a principal components analysis and factor loadings exhibit exceptional factorial clarity.

To measure the attitudes of lower grade children, Lewis (1972) even made the stems of the items pictorial and reported a split-half reliability at .69.

Another extensively used attitudinal measure belonging to the summated rating scale is the Semantic Differential Technique (SD) developed by Osgood (1953) and his co-workers in the fifties. The SD

technique consists of a number of stimuli and to each of the stimuli a number of bipolar seven points-scales or five points-scales were constructed using opposite adjectives as two poles. Using factor analysis Osgood and his co-workers found that their adjective pairs could measure attitudes in three different areas which they named "evaluation", "potency" and "activity". A great number of researchers adopted the evaluation adjective pairs to measure attitudes in different fields and reported that the reliabilities of their instruments ranged from .6 to .9. Snider and Osgood (1969) edited the research articles relevant to this SD method in a sourcebook entitled "Semantic Differential Technique".

Di Vesta (1966), Di Vesta and Kick (1966) brought the measure to elementary schools and found evidence for the stability of the framework even down to the second-grade level.

Comparing with Haladyna and Thomas' scale and Lewis' scale, SD has a greater variance and less response-set so as to make the statistics more precise.

School-related Attitudes

In the measurement of the attitudes toward school related matters, Neale and Proshek (1967) found that the 4th, 5th and 6th grade children in either low social-economic status district or middle class district used to respond positively or at least neutrally to the stimuli of SD. As grade in school increased, the attitude became significantly less positive for a variety of stimuli, including "My school books", "my classroom", "my teacher" and "me". Groobman, Forward and Peterson (1976) had their study on attitude toward schools, teachers, learning

and school authority in 3 formal schools and 3 informal schools. It was found that the informal school children had more positive attitude toward school. Roshal, Frieze and Wood (1971) thought, in their study of attitudes toward school, learning and technology, that the attitude toward learning did reflect more of a personality trait than the attitude toward school and thus the former would not be so susceptible to short term changes as the latter. The correlation between the former and the latter was found .68.

Haladyna and Thomas (1979) in their measurement of the attitudes of elementary school children toward schools and subject matters found also that the attitudes declined steadily from grades one to eight, and this phenomenon was more obvious for boys than for girls. It is worthwhile to notice that in their findings the mean ratings of all subject matters except one were above the mean ratings of the attitude toward school. Indirectly this suggested that attitude toward school was not a combination of attitude toward subject matters. While the sampled students were negative about school, this did not carry over to subject matters nor did more positive attitudes toward subject matters carry over to that toward school.

A lot of other reports (Wisenthal, 1967; Barker Lunn, 1969; Sharples, 1969) mentioned that girls had a superior attitudes toward schools to boys at all levels. But for the attitudes toward different school subjects, boys and girls seemed to have different favorites. Elementary school girls preferred language, arts, social studies, music and art while boys preferred maths, science and physical education (Haladyna and Thomas, 1979). Maybe it is due to the different ways of bringing up or expectation in the family.

The declination of attitudes toward school was found not only by Neale and Proshek. This happened to be a common feature in other reports (Haladyna and Thomas, 1979; Neale, Gill & Tismer, 1970; Barker Lunn, 1969; and, Croucher and Reid, 1982.) Neale and Proshek found it difficult to interpret this growing dissatisfaction with school. It was suggested as a function of shifts in the way children responded to instrument of that type in their growth. Otherwise, it showed that the schools were falling down on one of the most important proximate objectives of education, the cultivation of a positive attitude toward schooling.

Regan (1967) failed to find consistent relationships between personality and attitudes. Similarly, Croucher and Reid (1982) found that the attitude declination of the young school children did not appear to be strongly associated with ability and personality factors. Their results appeared to support the view that attitudes were more influenced by factors such as school, teaching methods and attendance etc., than by factors associated with individual differences.

School-related Attitudes and Academic Attainment

Malpass (1953) found no significant relationship between eighth graders' overall attitude toward school and achievement test scores but the attitude measure and the teachers' grading did relate in the range between .31 and .57. Coleman and his co-workers (1966) found that attitudes toward school and learning were significant indicators of verbal skills for sixth graders. In the study of Brodie (1964) the positive but often nonsignificant relationship between grades and achievement scores and attitudes was recorded. Neale et al.

(1970) found that the significance of relationship between attitudes and academic achievements depended upon sex and subjects. They were significant for boys in social studies, arithmetic and reading, and for girls in reading only. It was supposed that the achievement in social studies, science and arithmetic was somehow less rewarding to girls than to boys. If so, the girls' attitudes toward these subjects are determined not by their achievement but by other factors not evidenced yet. In the measurement of the relationship between attitudes toward school and reading score for groups of elementary school children exposed to formal and informal teaching style, Lewis and Adank (1975) found that the relationships were significant in the first grade and the fifth grade in informal school and were significant in the third grade and the forth grade in formal school. Since the measured attitudes toward schools may not be of the same dimension in different studies, an unsteady relationship was expected.

In another aspect, Aiken (1976) in his review of research on attitudes toward learning of mathematics concluded that a low but significant correlation was usually found.

To summarize, the relationship between attitude and attainment varies from one school subject to another school subject, and it also depends on sex and grade. Even in some circumstances the relationship is significantly positive, the value is low. Evenmore, very few researches which indicated positive relationship between attitude and academic attainment demonstrated a cause-effect relationship.

Comparison of Different Teaching Approaches

A lot of studies were carried out on the effectiveness of

different teaching approaches. Marsh and Wilder (1954) concluded that no single, specific, observable teaching behaviour had been found, whose frequency or percentage of occurrence had invariably and significantly correlated with student achievement. The research finding was further demonstrated by Anderson (1959) who, in considering thirty-two studies, reported that no different outcomes were found in the learner-centred classes and the teacher-centred classes. Gage (1963) and Wallen and Travers (1963) both concluded that change in pupils seemed largely unaffected by the teaching styles. So were the findings of Baldwin (1965) and Stephens (1967). After then, Flanders (1970) established a system of classroom observation technique. The system made the observation more specified and objective. Using Flanders' system, La Shier and Westmeyer (1967) related teacher behaviour to pupil achievement and attitudes positively in a unit study of the Biological Science Curriculum. Furst (1967), reworking data collected by Bellack and others (1966), found a composite variable of indirect teacher behaviour related positively to pupil achievement.

Lewis and Adank (1975) tried an effort to study the attitudes and achievement of students in formal schools and informal schools and showed neither one style of teaching was superior. Groobman et al. (1976) measured the attitudes, self-esteem and learning in formal and informal schools. They found that informal school students had more positive attitude toward school and teachers and had greater transfer of learning from school to nonschool settings. The differences between the formal school students and the informal school students in self-esteem, learning and academic expectations were not significant. The students in the study were sixth graders.

As the findings in the comparison of formal and informal teaching styles were so inconsistent, Bennett (1976) thought that it might be due to the different definitions of "informal teaching" in different studies. In her study on the effectiveness of formal and informal teaching styles, she first analysed the typology of teaching styles and claimed that there were 12 types. Out of them three were most open and activity-based. These three were taken to be the type of informal teaching. And, three were most lecture-based and they were taken to be formal teaching. Bennett then analysed the students' behaviour and found out the interaction of teaching styles and students' behaviour. She found out that except for the low-ability boys, formal teaching was more effective than informal teaching in the school subjects, reading, mathematics and general English. No significant difference in creative writing and descriptive writing was found between the formal and the informal school students. In the personality test, little difference was found in self-concept and self-esteem. Only motivation and anxiety were greater in the informal teaching. It was those motivated stable extroverts who might obtain the best academic result in the formal classes.

Recently Horwitz (1979), having reviewed 200 empirical studies that evaluated the informal education programs, found that most of the studies showed no significant difference in academic attainment, but the informal schools used to generate a better nonachievement outcome on attitudes toward school, creativity, independence and conformity, curiosity and cooperation. Similar findings were reported by Peterson (1979) and Hedges, Giaconia and Gage (1981) after their meta-analyses of a large number of researches. Giaconia and Hedges (1982) even

identified four features which determined the superior effects of informal schools on the nonachievement outcomes. The four features were (1) the role of the child in learning, (2) diagnostic evaluation, (3) manipulative materials, and (4) individualized instruction.

As for the local practice of the informal teaching, i.e. the Activity Approach, the "Pilot Scheme in Primary Schools: Report of the Third Year (1974-1975)" reported that two attainment tests were set and administered in the year 1974-1975 to all primary one students in the Transitional Schools and equal number of primary one students in the Conventional Schools. The statistically significant difference was in favor of the Transitional Schools. But, the reliabilities of those tests were not revealed.

In March, 1979 a seminar was held by Education Department on the practice of the Activity Approach. Four hundred primary school principals attended the seminar. By the same time, a survey was conducted to find out the opinion of the Transitional School principals and the Activity Approach students' parents about the teaching effect of the Activity Approach. A report was published in the same year. Although some special administration problems in the Activity Approach Schools were brought up by the principals, positive attitudes toward the Activity Approach were reflected generally. If this survey took the Conventional Schools as the control group for comparison, the work would be more meaningful.

Stella Chan (1980) had a survey of the opinion of 227 alumni and 1743 students' parents of a Transitional Schools on how much they liked the practice of the Activity Approach. Most of the alumni and parents stood on the positive side of the Activity Approach of teaching.

Benjamin Chan (1980) attempted to compare the effectiveness of the Activity Approach with that of the Conventional Approach in terms of academic and social-emotional attainment of pupils in the lower primary grades in a longitudinal design. It was found that pupils exposed to the Activity Approach after a period of two to three years did not achieve as high levels as their counterpart in Chinese Language and Mathematics. The difference was negligible on the social-emotional attainment. In contrast to academic attainment, however, pupils from the Transitional Schools were found to have grown faster in their mental capabilities than their peers from the Conventional Schools. The social-emotional maturity scale used to measure the social-emotional attainment consisted of five subscales: (1) dependence on authority, (2) peer relationship, (3) self-concept, (4) attitudes toward school, and (5) social values. Although the factor analysis of these five subscales showed an unidimension, the insignificant difference between the Transitional Schools children and the Conventional Schools children might not imply insignificant difference between those two groups of children when using individual subscales.

CHAPTER III

METHOD

Sampling

In the main study primary school pupils were sampled from the Primary Three, Primary Four and Primary Five classes. Table 1 shows the

Table 1

Sample in the Main Study

Type of School	P.3		P.4		P.5	
	Boy	Girl	Boy	Girl	Boy	Girl
CS	46	38	39	41	44	42
TS	42	34	49	24	38	33
AS	41	32	38	32	39	32
					Total = 684	

distribution of the sample pupils. The three primary schools chosen for this study had the same characteristics as follows.

1. They were all government subsidised schools.
2. All teachers in these schools were the graduates of the Colleges of Education which provide normal teacher training courses.
3. They were run by either protestant or catholic churches.
4. They had classes only in the afternoon session.

5. They were located in or near the housing estates of lower and middle class families.

6. They were prestigious primary schools in their own districts.

7. Their Primary Three, Primary Four and Primary Five classes were of mixed abilities.

Owing to the administration difficulties that could not be overcome, the randomization of the pupils was impossible. Two classes were taken arbitarily from each of the Primary Three, Primary Four and Primary Five levels in each school. Therefore, a total of six classes were taken from each school.

Instrumentation

In order to construct a valid and reliable instrument for the study, a pilot test was given to two classes of Primary Three pupils, one from a Conventional School and one from a Transitional School. The former class consisted of 23 boys and 19 girls while the latter class consisted of 17 boys and 18 girls. The pilot test was administered in February 1982.

The pilot test was a semantic differential instrument with the 3-point scales to measure the attitudes of the pupils toward four stimuli each of which formed a subscale. The subscales were: attending lesson, classmate, homework and Chinese reading (See Appendices III and IV). Twelve bipolar adjective pairs, viz. good-bad, beautiful-ugly, clean-dirty, necessary-unnecessary, kind-cruel, sweet-bitter, happy-sad, white-black, perfect-imperfect, fragrant-foul, honest-dishonest, and fair-unfair were provided to form 12 items for responses to each of the four subscales. Half of the adjective pairs were reversed in their

directions in order to counteract response bias tendencies. The pupil would be given a score of 1, 2 or 3 points for his negative, neutral or positive response respectively to each of the 12 pairs of bipolar adjectives in a subscale. For example, if one responded negatively to all 12 adjective pairs, one would score 12 points. If one responded positively to all 12 items, one would score 36 points. The possible score obtained by a pupil in responding to one of the four subscales would range from 12 to 36 points.

After the pilot test, the collected data were processed by computer using Statistical Packages for Social Science (SPSS). The reliability coefficients of the four subscales are shown in Table 2.

Table 2

Cronbach's Alpha Coefficients of Internal Reliability of the Subscales in the Pilot Test

	Subscale			
	Going to school	Classmates	Homework	Chinese Reading
CA Class (N = 42)	0.85	0.88	0.85	0.90
AA Class (N = 35)	0.68	0.80	0.86	0.87

The collected data were also undergone factor analyses with principal axis method. The factor matrices of the four subscales are shown in Tables 3, 4, 5 and 6. The matrices show that the items of each

Table 3

Factor Matrix of Subscale "Attending Lesson" in Pilot Test

Item	Factor[a]			Communality
	I	II	III	
good-bad	0.473	0.308	0.199	0.358
beautiful-ugly	0.354	0.600	-0.308	0.581
clean-dirty	0.429	0.101	0.211	0.239
necessary-unnecessary	0.422	0.019	-0.029	0.179
kind-cruel	0.392	0.231	0.379	0.350
sweet-bitter	0.509	-0.024	0.337	0.373
happy-sad	0.533	0.016	0.228	0.337
white-black	0.673	-0.169	-0.113	0.494
perfect-imperfect	0.471	0.049	-0.380	0.368
fragrant-foul	0.607	0.036	-0.177	0.401
honest-dishonest	0.572	-0.631	-0.008	0.725
fair-unfair	0.670	-0.101	-0.205	0.502
Eigenvalue	3.226	0.961	0.720	4.907
% of Total	26.9	8.0	6.0	40.89
% of Common	65.7	19.6	14.7	

Note

[a] The first three factors extracted using the principal axis method.

Table 4

Factor Matrix of Subscale "Classmate" in Pilot Test

Item	Factor[a]		Communality
	I	II	
good-bad	0.376	0.507	0.399
beautiful-ugly	0.538	-0.333	0.400
clean-dirty	0.508	-0.155	0.282
necessary-unnecessary	0.403	0.265	0.233
kind-cruel	0.669	0.244	0.507
sweet-bitter	0.606	0.101	0.378
happy-sad	0.476	0.356	0.353
white-black	0.654	-0.079	0.434
perfect-imperfect	0.631	0.107	0.410
fragrant-foul	0.782	-0.376	0.753
honest-dishonest	0.631	-0.053	0.402
fair-unfair	0.688	-0.177	0.504
Eigenvalue	4.202	0.852	5.055
% of Total	35.0	7.1	42.1
% of Common	83.1	16.9	

Note

[a] The first two factors extracted using the principal axis method.

Table 5

Factor Matrix of Subscale "Homework" in Pilot Test

Item	Factor[a]			Communality
	I	II	III	
good-bad	0.497	-0.020	-0.592	0.598
beautiful-ugly	0.603	0.115	0.192	0.414
clean-dirty	0.446	0.440	0.249	0.455
necessary-unnecessary	0.583	0.336	-0.269	0.525
kind-cruel	0.418	0.215	0.091	0.230
sweet-bitter	0.614	0.003	0.079	0.383
happy-sad	0.620	-0.490	-0.111	0.637
white-black	0.549	0.067	0.011	0.306
perfect-imperfect	0.693	0.009	-0.084	0.488
fragrant-foul	0.558	-0.124	0.337	0.440
honest-dishonest	0.707	0.071	-0.085	0.512
fair-unfair	0.658	-0.402	0.197	0.634
Eigenvalue	4.111	0.794	0.715	5.622
% of Total	34.3	6.6	6.0	46.9
% of Common	73.2	14.1	12.7	

Note

[a] The first three factors extracted using the principal axis method.

Table 6

Factor Matrix of Subscale "Chinese Reading" in Pilot Test

Item	Factor[a]		Communality
	I	II	
good-bad	0.589	0.260	0.415
beautiful-ugly	0.635	-0.276	0.480
clean-dirty	0.637	-0.410	0.573
necessary-unnecessary	0.735	-0.134	0.559
kind-cruel	0.656	0.220	0.479
sweet-bitter	0.609	0.012	0.371
happy-sad	0.641	-0.157	0.435
white-black	0.673	-0.275	0.529
perfect-imperfect	0.606	-0.020	0.368
fragrant-foul	0.591	0.347	0.469
honest-dishonest	0.479	0.230	0.283
fair-unfair	0.745	0.285	0.636
Eigenvalue	4.864	0.733	5.597
% of Total	40.5	6.1	46.6
% of Common	86.9	13.1	

Note

[a] The first two factors extracted using the principal axis method.

subscale were mainly loaded on one factor. There were eight adjective pairs which had rather high loadings on the first factors in all four subscales. They were beautiful-ugly, kind-cruel, sweet-bitter, happy-sad, white-black, perfect-imperfect, honest-dishonest, fair-unfair. They were used to match six stimuli to form six subscales in the main study. The subscales were my school, my teacher, my classmate, attending lesson, homework and school subject. Totally there were 8 x 6 = 48 items. Using a random number table the 48 items were mixed and then re-numberred. The adjective pairs of half of the items were also reversed in their directions. In addition to the 48 items, another item was made to investigate the pupils' average number of hours used per day to do their homework. This instrument (See Appendices V and VI) was then taken for measurement. Factor analysis and Cronbach's alpha coefficient test would be used to check the validity and reliability of the final instrument after the data were collected.

The principal of the Conventional School consented to supply the author the students' scores of the mid-year examination (1981-1982) so that the correlation between the school-related attitudes and the academic attainment could be computed.

Test Administration

The attitude measures in Chinese version (See Appendix VI) were conducted in the three primary schools in June, 1982. All testing was administered class by class by the author himself in the absence of the class teachers. The time allowed for the tests was 35 minutes. The first and the last school periods were not used for testing because of higher degree of pupils' emotional disturbance and routine interruption

during these periods. The instruction for taking the test was recorded on a cassette tape and played back to the class before the test commenced. It taught them how to respond to the test items. The author also asked questions to the class to ensure that the class understood all the wordings in the instrument.

Data Analysis

Since sex might be an influential variable to the school-related attitudes, to investigate the effect of the type of school on the school-related attitudes, type of school and sex were taken as two independent variables in the two-way analyses of variance of the collected data so that the Activity Approach and the Conventional Approach could be compared.

By the same reason, the school level and sex were taken as two independent variables in the two-way analyses of variance of the collected data to investigate if the pupils' attitudes changed from the Primary Three level to the Primary Five level in three types of schools.

The t-tests were computed for every pair of groups of pupils in which the significant difference in attitudes was found. Pearson correlation coefficients between the homework time and the school-related attitudes and between the academic attainment and the school-related attitudes were computed to find the relationships of the above variables.

CHAPTER IV

RESULTS

Validity and Reliability of the Instrument

Factor analyses of the pupils' responses to the six subscales in the main study indicate that the items of each subscale are mainly loaded on one factor (See Table 7). The minimum loading in the Table 7 is 0.46. All the loadings are high enough to make their items acceptable to the subscales. The percentage of total variance of a subscale accounted by the first factor ranges from a minimum of 32% to a maximum of 42%. This implies a satisfactory validity.

Using the 684 pupils' responses the Cronbach's alpha coefficients of internal reliability of the subscales were computed. The coefficients of the subscale "my school", "my teacher", "my classmate", "attending lesson", "homework" and "school subject" are 0.84, 0.86, 0.79, 0.81, 0.84 and 0.84, respectively, which assure a satisfactory reliability of the instrument used in this study.

Comparison of the School-Related Attitudes of the Primary Three Pupils

The analyses of variance are used here to test if there exist any significant differences of the school-related attitudes among the pupils in the Conventional, Transitional and Activity Schools. The results are displayed in Tables 14 to 19. Tables 8 to 13 show the means and standard deviations of the attitude scores for different groups of pupils.

It is found that the differences of attitude scores among the pupils in the three types of schools are not significant in three

Table 7

Loadings of Adjective Pairs on the First Principal Factors for Subscales in Main Study [a]

Adjective pair	Subscales											
	My School		My Teacher		My Classmate		Attending Lesson		Homework		School Subject	
	loading	h^2	loading	h^2	loading	h^2	loading	h^2	loading	h^2	loading	h^2
beautiful-ugly	0.65	0.42	0.53	0.28	0.52	0.27	0.55	0.30	0.65	0.43	0.64	0.41
kind-cruel	0.70	0.49	0.75	0.56	0.66	0.43	0.70	0.49	0.70	0.49	0.67	0.45
sweet-bitter	0.64	0.41	0.59	0.35	0.49	0.24	0.61	0.37	0.65	0.42	0.68	0.46
happy-sad	0.63	0.40	0.63	0.40	0.59	0.34	0.60	0.36	0.65	0.42	0.65	0.42
white-black	0.52	0.27	0.64	0.41	0.52	0.27	0.61	0.37	0.63	0.40	0.47	0.22
perfect-imperfect	0.50	0.25	0.64	0.41	0.52	0.27	0.55	0.30	0.60	0.37	0.65	0.42
honest-dishonest	0.64	0.40	0.74	0.55	0.63	0.40	0.46	0.21	0.48	0.23	0.61	0.38
fair-unfair	0.67	0.44	0.63	0.40	0.60	0.36	0.57	0.32	0.57	0.32	0.63	0.39
Eigenvalue	3.09		3.37		2.57		2.71		3.07		3.15	
% of Total	38.6		42.1		32.1		33.9		38.4		39.4	
% of Common	100		100		100		100		100		100	

Note : N = 684

[a] All other factors have Eigenvalues less than .1 and are not shown in the table.

Table 8

Means and Standard Deviations of Attitude Scores in Subscale "My School"

Level	CS		TS		AS	
	Boy	Girl	Boy	Girl	Boy	Girl
P.3						
M	19.91	22.05	17.76	20.88	20.70	20.75
SD	3.47	2.12	3.93	2.73	3.44	2.38
P.4						
M	20.21	20.17	17.98	21.74	20.32	20.66
SD	2.76	2.61	3.98	2.16	3.12	2.85
P.5						
M	18.88	21.26	19.18	21.16	19.13	20.28
SD	4.02	2.54	3.65	3.36	3.74	3.44

Table 9

Means and Standard Deviations of Attitude Scores in Subscale "My Teacher"

Level	CS		TS		AS	
	Boy	Girl	Boy	Girl	Boy	Girl
P.3						
M	19.09	21.26	18.05	20.68	20.17	21.53
SD	3.68	1.80	3.93	2.41	3.14	2.50
P.4						
M	19.32	19.05	15.94	20.00	18.66	19.78
SD	2.85	3.28	4.39	3.09	3.29	3.47
P.5						
M	17.66	19.02	17.50	19.73	16.69	17.59
SD	4.28	3.17	3.74	3.45	4.11	3.90

Table 10

Means and Standard Deviations of Attitude Scores in Subscale "My Classmate"

Level	CS		TS		AS	
	Boy	Girl	Boy	Girl	Boy	Girl
P.3						
M	17.43	19.29	16.38	17.35	17.93	18.00
SD	3.72	2.76	3.31	2.99	3.22	3.85
P.4						
M	18.21	19.24	17.94	19.36	18.00	18.81
SD	3.16	3.27	3.13	2.65	3.26	2.91
P.5						
M	18.23	19.49	17.24	19.56	18.38	19.66
SD	3.89	2.64	3.44	3.68	3.60	3.05

Table 11

Means and Standard Deviations of Attitude Scores in Subscale "Attending Lesson"

Level	CS		TS		AS	
	Boy	Girl	Boy	Girl	Boy	Girl
P.3						
M	19.78	20.79	18.71	20.79	20.56	20.69
SD	2.82	2.62	3.88	2.87	2.82	2.55
P.4						
M	19.29	19.83	18.83	21.09	20.08	19.78
SD	2.76	1.77	3.50	2.70	2.83	2.87
P.5						
M	18.62	20.05	19.11	21.31	18.72	19.44
SD	3.19	2.46	3.02	2.91	3.75	3.59

Table 12

Means and Standard Deviations of Attitude Scores in Subscale "Homework"

Level	CS		TS		AS	
	Boy	Girl	Boy	Girl	Boy	Girl
P.3						
M	18.28	19.73	17.55	20.32	19.49	20.23
SD	3.40	2.66	3.80	2.64	3.88	2.17
P.4						
M	18.79	19.26	17.08	20.33	19.08	18.56
SD	3.18	2.56	4.16	2.60	3.22	3.32
P.5						
M	18.00	19.00	17.89	19.57	16.97	18.84
SD	3.62	2.05	3.03	3.36	3.75	3.88

Table 13

Means and Standard Deviations of Attitude Scores in Subscale "School Subject"

Level	CS		TS		AS	
	Boys	Girl	Boy	Girl	Boy	Girl
P.3						
M	18.28	19.66	17.07	20.00	19.12	19.00
SD	3.55	2.66	4.05	2.86	3.57	3.10
P.4						
M	18.66	18.54	17.02	19.83	19.38	18.22
SD	3.31	2.12	4.02	2.39	3.51	3.07
P.5						
M	17.30	18.59	17.61	19.12	17.46	18.75
SD	4.08	3.16	3.23	3.82	3.40	3.47

Table 14

Two-Way Analysis of Variance : Effect of Type of School and Sex on Attitude Score in Subscale "My School"

Source	P.3			P.4			P.5		
	df	MS	F	df	MS	F	df	MS	F
Type of School	2	68.8	6.94**	2	27.0	2.83	2	3.0	0.25
Sex	1	183.8	18.54**	1	76.3	8.01**	1	188.0	15.34**
Interaction	2	48.8	4.92**	2	78.5	8.25**	2	6.1	0.50
Residual	223	9.9		208	9.5		217	12.3	

** $p < .01$

Table 15

Two-Way Analysis of Variance : Effect of Type of School and Sex on Attitude Score in Subscale "My Teacher"

Source	P.3			P.4			P.5		
	df	MS	F	df	MS	F	df	MS	F
Type of School	2	61.7	6.95**	2	95.9	7.90**	2	54.8	3.79*
Sex	1	255.9	28.81**	1	139.5	11.50**	1	112.7	7.79**
Interaction	2	7.6	0.85	2	107.1	8.83**	2	5.3	0.37
Residual	223	8.9		208	12.1		217	14.5	

* $p < .05$

** $p < .01$

Table 16

Two-Way Analysis of Variance : Effect of Type of School and Sex on Attitude Score in Subscale "My Classmate"

Source	P.3			P.4			P.5		
	df	MS	F	df	MS	F	df	MS	F
Type of School	2	49.6	4.59*	2	1.0	0.11	2	7.2	0.60
Sex	1	64.0	5.92*	1	71.7	7.45**	1	121.3	10.05**
Interaction	2	13.0	1.20	2	3.7	0.38	2	6.2	0.51
Residual	223	10.8		208	9.6		217	12.1	

* $p < .05$

** $p < .01$

Table 17

Two-Way Analysis of Variance : Effect of Type of School and Sex on Attitude Score in Subscale "Attending Lesson"

Source	P.3			P.4			P.5		
	df	MS	F	df	MS	F	df	MS	F
Type of School	2	21.8	2.45	2	6.07	0.75	2	23.6	2.33
Sex	1	75.7	8.50**	1	24.3	3.01	1	111.6	11.00**
Interaction	2	14.0	1.58	2	30.0	3.72*	2	11.9	1.17
Residual	224	8.9		207	8.1		213	10.1	

* $p < .05$

** $p < .01$

Table 18

Two-Way Analysis of Variance : Effect of Type of School and Sex on Attitude Score in Subscale "Homework"

Source	P.3			P.4			P.5		
	df	MS	F	df	MS	F	df	MS	F
Type of School	2	25.4	2.44	2	13.3	1.24	2	13.6	1.25
Sex	1	162.4	15.58**	1	56.0	5.23*	1	109.2	10.01**
Interaction	2	18.4	1.76	2	58.1	5.42**	2	5.3	0.49
Residual	224	10.4		207	10.7		213	10.9	

* $p < .05$

** $p < .01$

Table 19

Two-Way Analysis of Variance : Effect of Type of School and Sex on Attitude Score in Subscale "School Subject"

Source	P.3			P.4			P.5		
	df	MS	F	df	MS	F	df	MS	F
Type of School	2	9.8	0.87	2	18.0	1.74	2	4.9	0.39
Sex	1	110.9	9.80**	1	15.0	1.44	1	112.9	8.92**
Interaction	2	43.0	3.80	2	76.8	7.40**	2	1.7	0.14
Residual	224	11.3		207	10.4		213	12.7	

** $p < .01$

subscales, namely, "attending lesson" ($F(2,224) = 2.45$, $p = 0.09$, n.s.), "homework" ($F(2,224) = 2.44$, $p = 0.09$, n.s.) and "school subject" ($F(2,224) = 0.87$, $p = 0.42$, n.s.) at the Primary Three level. At this level, Tables 14, 15 and 16 show significant differences in attitude scores due to different types of schools in the subscales "my school" ($F(2,223) = 6.94$, $p < .01$), "my teacher ($F(2,223) = 6.95$, $p < .01$) and "my classmate" ($F(2,223) = 4.59$, $p < .05$).

As for the subscale "my school", the Transitional School boys have the attitude scores significantly lower than the Conventional School boys ($t(82) = 2.71$, $p < .01$) and also significantly lower than the Activity School boys ($t(79) = 3.60$, $p < .01$), but the Conventional School girls have the attitude scores significantly higher than the Transitional School girls ($t(62) = 2.02$, $p < .05$) and also significantly higher than the Activity School girls ($t(63) = 2.40$, $p < .05$). In other words, the Transitional School boys and girls have a significantly less positive attitudes than the Conventional School children toward their schools. There are no significant difference between the Conventional School boys and the Activity School boys but the Conventional School girls have a significantly higher attitude than the Activity School girls.

The girls have a significantly higher attitude than the boys in the Conventional School ($t(76) = 3.47$, $p < .01$) and in the Transitional School ($t(72) = 4.07$, $p < .001$) but the difference between two sexes is not found significant in the Activity School.

As for the subscale "my teacher", the Transitional School boys' attitude scores are lower than the Activity School boys ($t(78) = 2.72$, $p < .01$), and girls have higher attitude scores than boys in all three types of schools. As for the subscale "my classmate" the difference in

attitude score between the Transitional School boys and the Activity School boys is significant ($t(79) = 2.14$, $p < .01$) and the latter school boys have a higher mean score. Also the Transitional School girls have a significantly lower attitude toward the classmates than the Conventional School girls ($t(67) = 2.84$, $p < .01$). Only in the Conventional School the girls have a higher attitude than the boys toward their classmates.

Comparison of the School-Related Attitudes of the Primary Four Pupils

At the Primary Four level, the typology of schools causes a significant difference in attitude scores among pupils in subscale "my teacher" only ($F(2,208) = 7.90$, $p < .01$). In the above subscale, the Transitional School boys have an attitude significantly lower than both the Conventional School boys ($t(83) = 4.33$, $p < .001$) and the Activity School boys ($t(85) = 3.30$, $p < .01$).

Sex is an influential variable in subscale "my school", "my teacher", "my classmate", "homework" and "school subject" in which girls are used to have significantly more positive attitudes in the Transitional School. However, no significant differences are found between boys and girls in the Conventional and Activity Schools.

Comparison of the School-Related Attitudes of the Primary Five Pupils

Just like what we have seen at the Primary Four level, at the Primary Five level, the typology of schools causes a significant difference only in the subscale "my teacher" ($F(2,217) = 3.79$, $p < .05$). It is mainly due to the significant difference between the Transitional School girls and the Activity School girls ($t(62) = 2.33$, $p < .05$) while the latter have a less positive attitude toward their teachers. Girls are

used to have more positive attitudes than the boys in all six subscales and these differences are most obvious in the Transitional School.

Changes of the School-Related Attitudes of Pupils in the Conventional School

In the Conventional School, the pupils' attitude toward their teachers changes significantly ($F(2,240) = 5.33$, $p < .01$) as shown in Table 21. T-tests show that the drops are significant for the boys being promoted from Primary Four to Primary Five ($t(75) = 2.09$, $p < .05$) and for the girls being promoted from Primary Three to Primary Four level ($t(61) = 3.72$, $p < .001$). The differences of attitude scores in other subscales among the Primary Three, Primary Four and Primary Five pupils are found insignificant. This implies that the school-related attitudes are quite steady.

Changes of the School-Related Attitudes of Pupils in the Transitional School

In the Transitional School, the attitude changes are found significant in the subscale "my teacher" ($F(2,201) = 4.42$, $p < .05$) as shown in Table 21 and in the subscale "my classmate" ($F(2,201) = 6.14$, $p < .01$) as shown in Table 22. For subscale "my teacher", t-tests show a significant drop of the boys' attitude when promoted from Primary Three to Primary Four ($t(89) = 2.42$, $p < .05$). But for the subscale "my classmate", the boys' attitude increases significantly when promoted from Primary Three to Primary Four ($t(81) = 2.26$, $p < .05$). The Transitional School girls also have a significant increase of the attitude toward their classmates when promoted from Primary Three to Primary Four ($t(49) = 2.64$, $p < .05$). The differences of attitude scores in the other subscales among

Table 20

Two-Way Analysis of Variance : Effect of Level and Sex on Attitude Score in Subscale "My School"

Source	CS			TS			AS		
	df	MS	F	df	MS	F	df	MS	F
Level	2	21.4	2.33	2	17.6	1.42	2	22.1	2.13
Sex	1	147.2	16.00**	1	409.8	33.06**	1	13.6	1.32
Interaction	2	36.7	3.99*	2	18.9	1.53	2	5.7	0.55
Residual	240	9.2		201	12.4		206	10.4	

* $p < .05$

** $p < .01$

Table 21

Two-Way Analysis of Variance : Effect of Level and Sex on Attitude Score in Subscale "My Teacher"

Source	CS			TS			AS		
	df	MS	F	df	MS	F	df	MS	F
Level	2	60.2	5.33**	2	57.4	4.42*	2	288.2	25.75**
Sex	1	72.3	6.40*	1	442.2	34.02**	1	78.6	7.03**
Interaction	2	25.6	2.27	2	28.6	2.20	2	1.1	0.09
Residual	240	11.3		201	13.0		206	11.2	

* $p < .05$

** $p < .01$

Table 22

Two-Way Analysis of Variance : Effect of Level and Sex on Attitude Score in Subscale "My Classmate"

Source	CS			TS			AS		
	df	MS	F	df	MS	F	df	MS	F
Level	2	8.4	0.75	2	63.2	6.14**	2	9.6	0.88
Sex	1	109.5	9.75**	1	117.3	11.40**	1	37.3	3.43
Interaction	2	1.4	0.13	2	9.0	0.88	2	4.0	0.37
Residual	240	11.2		201	10.3		206	10.9	

** $p < .01$

Table 23

Two-Way Analysis of Variance ; Effect of Level and Sex on Attitude Score in Subscale "Attending Lesson"

Source	CS			TS			AS		
	df	MS	F	df	MS	F	df	MS	F
Level	2	17.4	2.44	2	4.8	0.45	2	51.5	5.41**
Sex	1	55.5	7.78**	1	222.3	20.84**	1	2.8	0.29
Interaction	2	4.9	0.68	2	0.3	0.03	2	6.4	0.68
Residual	235	7.1		203	10.7		205	9.5	

** $p < .01$

Table 24

Two-Way Analysis of Variance : Effect of Level and Sex on Attitude Score in Subscale "Homework"

Source	CS			TS			AS		
	df	MS	F	df	MS	F	df	MS	F
Level	2	8.0	0.93	2	1.1	0.10	2	76.8	6.43**
Sex	1	60.7	7.11**	1	300.1	25.73**	11	30.7	2.57
Interaction	2	2.6	0.30	2	8.8	0.76	2	25.0	2.09
Residual	235	8.5		203	11.7		205	12.0	

** $p < .01$

Table 25

Two-Way Analysis of Variance : Effect of Level and Sex on Attitude Score in Subscale "School Subject"

Source	CS			TS			AS		
	df	MS	F	df	MS	F	df	MS	F
Level	2	21.3	2.03	2	1.2	0.09	2	19.8	1.74
Sex	1	50.7	4.81*	1	323.0	25.58**	1	0.0	0.00
Interaction	2	10.7	1.01	2	6.9	0.55	2	24.0	2.11
Residual	235	10.5		203	12.6		205	11.4	

* $p < .05$

** $p < .01$

the Primary Three, Primary Four and Primary Five pupils are found insignificant.

Changes of the School-Related Attitudes of Pupils in the Activity School

In the Activity School, the school level is an influential variable which causes significant differences in three subscales "my teacher" ($F(2,206) = 25.75$, $p < .01$), "attending lesson" ($F(2,205) = 5.41$, $p < .01$) and "homework" ($F(2,205) = 6.43$, $p < .01$) as shown in Tables 21, 23 and 24. The drops of attitudes toward the teachers are significant for boys and girls for each promotion from Primary Three to Primary Five ($t(76) = 2.09$ for boys and $t(56) = 2.31$ for girls when promoted from Primary Three to Primary Four and $t(72) = 2.32$ for boys and $t(61) = 2.37$ for girls when promoted from Primary Four to Primary Five, all $p < .05$). The drops of attitudes are significant when comparing the Primary Three and Primary Five boys for subscale "attending lesson" ($t(71) = 2.48$, $p < .05$) and when comparing the Primary Four and Primary Five boys for subscale "homework" ($t(72) = 2.62$, $p < .05$). The drop of attitude toward "homework" is significant for girls when promoted from Primary Three to Primary Four ($t(54) = 2.36$, $p < .05$).

Relationship between the Homework Time and the School-Related Attitudes

In the study instrument the last item asks the pupils to report the number of hours per day they spend in doing their homework. Pearson correlation coefficients between the homework time and the attitude scores of the six subscales were computed and are listed in Table 26. Three out of six coefficients show significant but negative relationships. They are the relationships between the homework time and the attitudes

Table 26

Pearson Correlation Coefficients : Relationships between Homework time and School-Related Attitudes

My School	-0.051
My Teacher	-0.133**
My Classmate	-0.020
Attending Lesson	-0.053
Homework	-0.159**
School Subject	-0.140**

Note

N = 684

** $p < .01$

toward the teachers ($r = -.133$, $p < .01$), toward the homework ($r = -.159$, $p < .01$) and toward the school subjects ($r = -.140$, $p < .01$). The negative values imply that the longer the time spent by the pupils in doing their homework, the lower would be the pupils' attitudes toward their teachers, toward doing homework and toward the school subjects. The amount of homework does not affect the pupils' attitudes toward their schools, their classmates and attending lessons. Nevertheless, the values of all three significant correlation coefficients are very small. This shows that the relationships are very weak.

Relationship between the Academic Attainment and the School-Related Attitudes

The Table 27 exhibits the Pearson correlation coefficients

Table 27

Pearson Correlation Coefficients : Relationship between Academic Attainment and School-Related Attitudes in Conventional School

Subscale	Level		
	Primary Three (N=41)	Primary Four (N=40)	Primary Five (N=34)
My School	0.010	0.171	0.173
My Teacher	0.044	0.132	0.009
My Classmate	-0.062	0.155	-0.035
Attending Lesson	0.105	0.352*	0.210
Homework	0.172	0.243	0.186
School Subject	0.213	0.461**	0.071

* $p < .05$

** $p < .01$

between the academic attainment and the school-related attitudes in one class of Primary Three, one class of Primary Four and one class of Primary Five pupils in a Conventional School. The correlations are significant only between the academic attainment and the attitude toward attending lessons ($r = .352$, $p < .05$) and between the academic attainment and the attitude toward the school subjects ($r = .461$, $p < .01$) in the Primary Four class.

CHAPTER V

CONCLUSIONS, DISCUSSIONS AND RECOMMENDATIONS

Conclusions

In this study, three types of primary schools are concerned. The Transitional and the Activity Schools adopt the Activity Approach of teaching at the Primary Three level while the Conventional School adopts the Conventional Approach of teaching at the same level. It is found that the Primary Three pupils' attitudes toward attending lessons, doing homework and their school subjects do not make significant differences in the above three types of schools. Namely, neither the Activity Approach nor the Conventional Approach is statistically superior in fostering the pupils' attitudes toward the above mentioned three school-related subjects. The Primary Three boys in the Transitional School have significantly lower attitudes toward their school, their teachers and the classmates. The Activity School and Conventional School pupils do not differ significantly in all school-related attitudes except that the Conventional School girls have a specially high attitude toward their school. Hence, no sufficient evidence is found to support the superiority of the Activity Approach on fostering pupils' positive school-related attitudes in the first three years of primary education.

At the Primary Four and Primary Five levels, no significant differences in attitude scores are found among the pupils in three types of schools for subscales "my school", "my classmate", "attending lesson", "homework" and "school subject". For the subscale "my teacher", the Transitional School boys' attitude scores have a significant drop in Primary Four but rises up in Primary Five. For the same subscale "my

teacher" the Transitional and Conventional School pupils do not differ significantly but the Activity School girls' attitude scores are significantly lower at Primary Five level.

The attitude drop is worth noticing in the subscale "my teacher". The declination occurs in all three types of schools but the Activity School pupils have the highest degree of declination. Also the Activity School boys have attitude drops toward attending lessons and homework and the Activity School girls have declination toward homework when they are promoted from Primary Three to Primary Four or Primary Five.

The attitude toward the classmates of the Transitional School pupils is low in Primary Three but significant rise is found so that at Primary Four and Primary Five levels their attitudes toward the classmates make no differences from the Conventional and Activity School pupils.

The above findings show that the effectiveness of the Activity Approach declines significantly from Primary Three level to Primary Five level on fostering the pupils' positive school-related attitudes while the effectiveness of the Conventional Approach remains more or less the same. However, if the pupils undergone three years of Activity Approach are promoted to Primary Four in which the Conventional Approach is adopted, the boys' attitude toward their teachers decline but both the boys and the girls have a more positive attitude toward their classmates.

On the whole, the primary school pupils have positive attitudes toward all kinds of school-related subjects. The girls' attitudes are more positive than the boys'. The homework time has significant relationships with the pupils' attitudes toward the teachers, doing homework and school subjects but the correlation coefficients are

negative and small. The academic attainment is correlated only with the Primary Four pupils' attitudestoward the school subjects and attending lessons.

Discussion

One of the goals of the Activity Approach specified by the Curriculum Development Committee, Education Department is to make the school a happy place for children. If this goal is achieved, the pupils should have a higher attitude toward their schools. The other goals of the Activity Approach are to promote the self-initiated learning by providing a stimulating environment, to adopt a less formal approach to learning, to encourage learning by doing, to provide opportunities for children to learn at their own pace and to relate children's daily experiences to their learning environment. If these goals are achieved, naturally the pupils would love to attend the lessons, would love the school subjects that they are learning, and would love to do the assigned homework. Then, they should show higher attitudes toward attending lessons, doing homework and the school subjects than the pupils in the Conventional Approach schools. However, the findings in this study show that the goals of the Activity Approach which are set against the Conventional Approach have not been achieved successfully.

The general requirement of the Activity Approach defined by the Education Department consists of both the physical setting (students sitting in groups, display area etc.) and the teaching-learning design (team teaching, group working, topic-centred scheme of teaching etc.). A school can change the physical setting at one shot. However the change of teaching-learning design would be so time consuming and so

difficult to supervise that the running of the Activity Approach in this aspects may be weak and superficial. Giaconia and Hedges (1982) reviewed hundreds of relevant studies and concluded that "Open education can produce greater self-concept, creativity and positive attitude toward school. The open education programs that have produced superior effects on non-achievement outcomes are characterized by the four features that we have described as the role of the child in learning, diagnostic evaluation, manipulative materials, and individualized instruction ..... Our results suggest that multiage grouping, open space, and team teaching do not distinguish more effective open education programs from less effective programs." We have to notice the four features mentioned by Giaconia and Hedges. All of them are related to the teaching-learning design which are more difficult to practise. However, if the foresaid features are not accomplished by the primary schools, it is not surprising that the so called Activity Approach is not as effective as expected.

The Primary Five pupils in the Activity School in this study are peculiar because they received three year's Activity Approach of teaching first, then one year's Conventional Approach and then Activity Approach again. If the Activity Approach is more welcome, the pupils would feel uneasy in the fourth year and enjoy to meet the Activity Approach again. Unfortunately these pupils' attitudes toward their teachers, attending lessons and doing homework drop further in the fifth year of primary education. Probably they get tired of the superficial practice of the Activity Approach so that they are not so conscientious in learning and in dealing with other people. The Primary Four and Primary Five pupils in the Transitional School are involved in the study because the author intended to measure the retention in

the Primary Four and Primary Five of the positive attitudes fostered by the practice of the Activity Approach in the first three years of primary education. Unexpectedly it is found that the Activity Approach does not help foster a more positive school-related attitudes so that the question of retention no longer exists. However, it is found that the pupils' attitude toward their classmates increases significantly from the Primary Three level to the Primary Five level. This may be due to the development of the sociability of the pupils as they grow up and become more mature.

The results of this study show that the relationships between the homework load and the pupils' attitudes toward the teachers, doing homework and school subjects are significant but negative. In other words, the more the homework time spent by the pupils, the lower would be the pupils' attitudes toward the teachers, doing the homework and the school subjects. But, the correlation coefficients for these three relationships are very small. Clearly, besides the homework time there must be some other factors which would affect the fostering of the above attitudes.

The relationships between the school-related attitudes and the academic attainment are found very weak. Also there must be some other factors besides the pupils' attitudes which are related to the academic attainment, say, ability, effort, task difficulty and luck etc. (Weiner, Frieze, Kukla, Reed, Rest and Rosenbaum, 1971).

Recommendations

In Hong Kong, there are more and more primary schools which claim to adopt the Activity Approach of teaching. If the Education

Department does not stop this practice so that the resources may be used in other sectors, the Education Department should pay more effort to raise up the effectiveness of the Activity Approach on the fostering of the positive attitudes of the pupils toward school, toward learning and toward other people. The author has the following suggestions. The teacher to class ratio, 1.2 : 1 should be increased. The number of students per class, 35 now, should be reduced. The half-day school should be converted to the whole-day school. All of these are to ensure the teachers to have more time and energy to collect and organize teaching materials, to evaluate the students diagnostically and to guide the students individually. At the same time, more teachers' handbooks, reference books and relevant resources should be made available in the market. The Advisory Inspectorate should give extensive supervision, supply not only a scheme of work but more alternative and detailed layout. The retraining programs for the primary school teachers should be speeded up. If so the quality of the Activity Approach can be improved and the goals of the Activity Approach can be achieved.

Because the measurement of this study was made in June when all the Primary Six pupils were ready to leave the schools, they were not involved in the study. It is suggested that in the further study of the Activity Approach the measurement should be administered in some earlier month in an academic year so that the measurement may be extended to the Primary Six level.

It is suggested that if time and manpower allow, the further study should include the classroom observation so that the study can be made formative and sound.

In this study the author tried to apply the Semantic Differential Technique in the measurement of the Primary Three to Primary Five pupils' attitudes and satisfactory validity and reliability are found. The author recommends the local researchers to make use of this technique for attitudinal measurement in the related areas.

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APPENDIX I

Introduction to Activity Approach

小學活動教學

簡介

不少小學校長和教師都感到一般小學生的質素，似乎是一年比一年差，而教學上的困難，也好像越來越多，因此一些有心人一直都在求求方法，去幫助兒童學習。爲甚麼有人認爲教學需要改革？爲甚麼校長或教師會說：「現在的學生眞是比較難教？」

其實社會是在不斷的演變中。工業社會似乎使兒童的知識較形博雜，難於靜坐聽講。其次，許多父母需外出謀生或酬酢繁忙，致兒童欠缺應有的照顧和愛護。再者，因社會的變易，有些一貫的教材內容或許未能引發兒童的興趣或滿足兒童的需求。

一九七二年九月，教育當局選了四間官立，一間津貼和一間私立小學開始了一項教學試驗計劃。基本的教學原則，是以兒童爲中心，使兒童有機會通過過歷的經驗去進行探討研究方式的較積極性學習。

學生的學習能力，其實是受著他本身的身心發展過程所規限，名學者如皮亞遜氏（Piaget）的學說，在這一方面有非常具影響力的研究。因此「以學生爲中心」的教學，應該是配合學生在其成長過程中的各種需求。

教育當局所推行的教學試驗計劃，不久被正名爲「小學活動教學」。「活動」一詞，給予很多人一些誤解，人們頗容易把「活動」和「戲耍」混上了，以爲「活動」就是玩玩，不是工作。其實「活動教學」的「活動」，是指學生在學習過程中所做的任何工作，主旨在着重學生的積極參與學習，而非純被動式的聽講。當然，

靜坐聽講是一項學習活動，做作業練習也是學習活動，其他的學習活動很多，包括討論、辯論、繪畫、唱歌、勞作、舞蹈、演戲、遊戲、參觀、訪問……等。這一切的活動，都是要達到某些既定的教學目的。因此「活動」就是一些有意義、有目標的工作，配合計劃好的教材，使師生有心思上的交流，共同參與的教學。

這項教學改革的嘗試，試開始進行以來，已漸漸受到重視。有一點或許需要說明，就是要實施「活動教學」，絕對沒有否定了現行一般的教學法。「活動教學」強調把教學重點放在兒童身上。不過，現行一般的教學，似乎是太偏重於學生的學業成績，而學業成績則似乎是純粹由一些公開選擇性或淘汰式的考試來評定，學生只能夠在指定的時間內，盡力去達到某些既定的標準或要求，至於學生個別能力的不同、學生思考或創作能力的培養，恐怕便難於兼顧了。

「活動教學」主旨在提供適當的學習環境，配合兒童身心發展的需要，使兒童能按照其本身的能力，去進行主動或較獨立性的學習。

「活動教學」鼓勵兒童從直接或間接經驗中學習，強調思考、分析與決策能力的培養，並著重知識和生活的相互配合。

利用分組的教學活動，更能夠有效地給予兒童適當的輔導，及讓學生有較多的機會去嘗試編排學習計劃與方式，或學習自行搜集及整合資料。這樣的教學設計，不單是要使學生獲得知識，還可以明白學習如何學習同樣是重要的，而學習過程中的每一項經歷，都是教學目的之一。

「活動教學」是教學重點的轉移，目的在徹底實施中外教育學家的理論，使兒童能在較隨和的環境下，按其本身的能力，去參與一些經教師特別策劃的學習活動。兒童在進行這些活動中，獲得更大的照顧，學得知識和技能，並掌握概念。「活動教學」減少了靜坐聽講的時間，使兒童大大提高學習的興趣。

劉景輝

一九八〇年四月重寫

APPENDIX II

General Requirements of Activity Approach

活動教學的一般要求

一、主旨

提供適當的學習環境，配合兒童身心發展的需求，使兒童能按照其本身的能力，去進行主動或較獨立性的學習。在教學方面，應鼓勵兒童從實踐或親歷經驗中學習，並應強調思考、分析及表達能力的培養。教材的運用，須與生活相互配合。

二、教學

1. 課室管理：課室秩序要求，仍屬極為重要，分組編座，是方便教師進行個別或分組的教學及輔導。因此在學期開始的數星期，教師須訓練學生，在分組就坐的情況下，仍需維持高度的課室秩序標準。學生不能隨意走動，但需訓練學生自行取用課室中之器材，用後加以整理，及在進行學習活動時，漸不需教師直接的督導，而養成獨立工作的習慣。

2. 課室陳設：除了展示及表揚學習成果以外，課室內的陳設，包括壁報板上的陳展品和室內的教具及器材，是可以誘發學習興趣，和顯示某段時間的學習過程（例如：專題設計）。此外所有課室內的陳設，是要方便教師或學生經常加以使用。壁報板上的展品，應有多量的學生作品，而非單純是教具或教師的製作。

3. 分組教學：分組編座，有許多便利之處，教師應盡量利用分組時間。

(甲) 組別數目：無規定，惟通常每班約有4－6組。

(乙) 每組人數：無規定，惟通常每組約有5－8人。
但亦無需每組人數相同。

(丙) 分組活動：活動的設計，必須有目的，是教學的一部份。

學生：做練習、作業、閱讀、及其他形式的學習活動（工作）。

教師 (1) 給予學生個別或小組的輔導。

(2) 進行分組的口頭練習，或心算／口述文字題。

(3) 如有需要，進行分組教學，重教，或其他特別的分組作業指導。

(4) 進行有系統的口頭表達能力訓練，藉以加強語文運用、思考及判斷能力的培養（例如：生活見聞報告、或透過聯想、推想或幻想而將某些意念表達出來）

(丁)進行分組活動須知：

(1)在同一段時間（教節）中，不需硬性規定各組進行不同的活動。

(2)活動可配合教學的任何一階段，以能有助達成教學目的爲合，如無需要，教師不宜花太多時間，挖空心思去組織大量學習活動。

(3)在人數衆多之班級進行集體教學，不一定要全班學生齊坐於前面，事實上集體教學亦可在分組坐的情況下進行，但教師要注意，可能需的情要學生略移座椅，使學生均可面向教學受教。

(4)在分組坐的形式下，教師應盡量減少要求學生花長時間自黑板上將資料抄寫下來。

(5)小型黑板（90cm × 60cm），可在分組教學時多予利用。

4. 教學法：

教師應盡量按照各科近期的教學趨勢及原則而施教，教學重點在減少注入式的靜坐聽講。教師應盡量按照活動教學主義，設計積極的探討性學習。

座談、討論、參觀、訪問、搜集及整存資料等學習技能，均需酌情增加。

三教材

課材不應是唯一的教材來源，課材可依需要予以增刪及調整次序，特別爲方便於配合單元之編配，若課材太多而又不擬刪除其中一部份，則需決定精教與略教之部份。

課程綱要與課材，均求包羅萬有，使學生對各方面事物，有廣泛的接觸，因此內容未必全部適合不同的學校，所以教材的取捨，實有必要。

工作咭是教學工具的一種，須按需要而擬擬，一般來說，工作咭有下述的用途：

(1)爲少數程度上有差異的學生而設計的作業。

(2)毋須全班學生都做的補充練習。

(3)其他活動指示。

坊間的作業及補充教材，應愼加選擇，方可使用。

四時間運用

彈性使用時間表所賦予的時間，是活動教學的特點之一，教師於

編排教學計劃時，應以一週爲單位，而不是以35分鐘教節爲單位。

從行政上說，每一學科及術科的每週時間分配，應依現行教署頒布的規定。

低年級的社會、小學科學及健康教育，應由一位教師任教，且最好是由班主任兼教。

教育署課程發展組

一九八一年三月

APPENDIX III

Pilot Test Attitude Scale (English Version)

Level: 3☐ 4☐ 5☐ Age:_____ Sex: M☐ F☐

1. Attending lesson is	bad	___	___	___	good
2. Most of my classmates are	bad	___	___	___	good
3. Doing homework is	bad	___	___	___	good
4. The Chinese Reading is	bad	___	___	___	good
5. Attending lesson is	beautiful	___	___	___	ugly
6. Most of my classmates are	beautiful	___	___	___	ugly
7. Doing homework is	beautiful	___	___	___	ugly
8. The Chinese Reading is	beautiful	___	___	___	ugly
9. Attending lesson is	clean	___	___	___	dirty
10. Most of my classmates are	clean	___	___	___	dirty
11. Doing homework is	clean	___	___	___	dirty
12. The Chinese Reading is	clean	___	___	___	dirty
13. Attending lesson is	necessary	___	___	___	unnecessary
14. Most of my classmates are	necessary	___	___	___	unnecessary
15. Doing homework is	necessary	___	___	___	unnecessary
16. The Chinese Reading is	necessary	___	___	___	unnecessary
17. Attending lesson is	cruel	___	___	___	kind
18. Most of my classmates are	cruel	___	___	___	kind
19. Doing homework is	cruel	___	___	___	kind
20. The Chinese Reading is	cruel	___	___	___	kind
21. Attending lesson is	sweet	___	___	___	bitter
22. Most of my classmates are	sweet	___	___	___	bitter
23. Doing homework is	sweet	___	___	___	bitter
24. The Chinese Reading is	sweet	___	___	___	bitter

25. Attending lesson is	sad	___	___	___	happy
26. Most of my classmates are	sad	___	___	___	happy
27. Doing homework is	sad	___	___	___	happy
28. The Chinese Reading is	sad	___	___	___	happy
29. Attending lesson is	white	___	___	___	black
30. Most of my classmates are	white	___	___	___	black
31. Doing homework is	white	___	___	___	black
32. The Chinese Reading is	white	___	___	___	black
33. Attending lesson is	perfect	___	___	___	imperfect
34. Most of my classmates are	perfect	___	___	___	imperfect
35. Doing homework is	perfect	___	___	___	imperfect
36. The Chinese Reading is	perfect	___	___	___	imperfect
37. Attending lesson is	foul	___	___	___	fragrant
38. Most of my classmates are	foul	___	___	___	fragrant
39. Doing homework is	foul	___	___	___	fragrant
40. The Chinese Reading is	foul	___	___	___	fragrant
41. Attending lesson is	honest	___	___	___	dishonest
42. Most of my classmates are	honest	___	___	___	dishonest
43. Doing homework is	honest	___	___	___	dishonest
44. The Chinese Reading is	honest	___	___	___	dishonest
45. Attending lesson is	unfair	___	___	___	fair
46. Most of my classmates are	unfair	___	___	___	fair
47. Doing homework is	unfair	___	___	___	fair
48. The Chinese Reading is	unfair	___	___	___	fair

APPENDIX IV

Pilot Test Attitude Scale (Chinese Version)

年級 3□ 4□ 5□ 年歲 □ 性別 男□ 女□

1.	返學校上課是	壞的	___	___	___	好的
2.	大多數的同學是	壞的	___	___	___	好的
3	做功課是	壞的	___	___	___	好的
4.	中文科是	壞的	___	___	___	好的
5.	返學校上課是	美麗的	___	___	___	醜陋的
6.	大多數的同學是	美麗的	___	___	___	醜陋的
7.	做功課是	美麗的	___	___	___	醜陋的
8	中文科是	美麗的	___	___	___	醜陋的
9	返學校上課是	整潔的	___	___	___	髒亂的
10	大多數的同學是	整潔的	___	___	___	髒亂的
11.	做功課是	整潔的	___	___	___	髒亂的
12.	中文科是	整潔的	___	___	___	髒亂的
13	返學校上課是	需要的	___	___	___	無需的
14	大多數的同學是	需要的	___	___	___	無需的
15	做功課是	需要的	___	___	___	無需的
16.	中文科是	需要的	___	___	___	無需的
17	返學校上課是	殘忍的	___	___	___	仁慈的
18	大多數的同學是	殘忍的	___	___	___	仁慈的
19	做功課是	殘忍的	___	___	___	仁慈的
20	中文科是	殘忍的	___	___	___	仁慈的
21	返學校上課是	甜蜜的	___	___	___	痛苦的
22	大多數的同學是	甜蜜的	___	___	___	痛苦的

痛苦的 ___ ___ ___
痛苦的 ___ ___ ___
快樂的 ___ ___ ___
快樂的 ___ ___ ___
快樂的 ___ ___ ___
快樂的 ___ ___ ___
污黑的 ___ ___ ___
污黑的 ___ ___ ___
污黑的 ___ ___ ___
污黑的 ___ ___ ___
不完美的 ___ ___ ___
不完美的 ___ ___ ___
不完美的 ___ ___ ___
不完美的 ___ ___ ___
香的 ___ ___ ___
香的 ___ ___ ___
香的 ___ ___ ___
香的 ___ ___ ___
虛假的 ___ ___ ___
虛假的 ___ ___ ___
虛假的 ___ ___ ___
虛假的 ___ ___ ___
公平的 ___ ___ ___
公平的 ___ ___ ___
公平的 ___ ___ ___
公平的 ___ ___ ___

甜蜜的 ___ ___ ___
甜蜜的 ___ ___ ___
憂愁的 ___ ___ ___
憂愁的 ___ ___ ___
憂愁的 ___ ___ ___
雪白的 ___ ___ ___
雪白的 ___ ___ ___
雪白的 ___ ___ ___
雪白的 ___ ___ ___
完美的 ___ ___ ___
完美的 ___ ___ ___
完美的 ___ ___ ___
完美的 ___ ___ ___
臭的 ___ ___ ___
臭的 ___ ___ ___
臭的 ___ ___ ___
臭的 ___ ___ ___
誠實的 ___ ___ ___
誠實的 ___ ___ ___
誠實的 ___ ___ ___
誠實的 ___ ___ ___
不公平的 ___ ___ ___
不公平的 ___ ___ ___
不公平的 ___ ___ ___
不公平的 ___ ___ ___

23 做功課是
24 中文科是
25. 迎學校上課是
26. 大多數的同學是
27. 做功課是
28 中文科是
29. 迎學校上課是
30. 大多數的同學是
31 做功課是
32. 中文科是
33 迎學校上課是
34 大多數的同學是
35. 做功課是
36. 中文科是
37. 迎學校上課是
38. 大多數同學是
39. 做功課是
40. 中文科是
41. 迎學校上課是
42. 大多數的同學是
43 做功課是
44 中文科是
45 迎學校上課是
46. 大多數的同學是
47. 做功課是
48 中文科是

APPENDIX V

Main Test Attitude Scale (English Version)

School:_____ Level:_____ Age:_____ Sex:_____ Class number:_____

The information you supply will be kept confidential and be treated with a computer. Please answer all the items based on your own opinion.

1. Most of my teachers are	fair	___ ___ ___	unfair
2. Attending lesson is	ugly	___ ___ ___	beautiful
3. Attending lesson is	honest	___ ___ ___	dishonest
4. Doing homework is	dishonest	___ ___ ___	honest
5. Most of my teachers are	beautiful	___ ___ ___	ugly
6. Attending lesson is	sweet	___ ___ ___	bitter
7. Most of my teachers are	sad	___ ___ ___	happy
8. My school is	imperfect	___ ___ ___	perfect
9. My school is	white	___ ___ ___	black
10. Most of the school subjects are	black	___ ___ ___	white
11. Doing homework is	sad	___ ___ ___	happy
12. Most of my classmates are	white	___ ___ ___	black
13. Doing homework is	bitter	___ ___ ___	sweet
14. Doing homework is	unfair	___ ___ ___	fair
15. My school is	happy	___ ___ ___	sad
16. Attending lesson is	imperfect	___ ___ ___	perfect
17. Attending lesson is	white	___ ___ ___	black
18. My school is	cruel	___ ___ ___	kind
19. Doing homework is	perfect	___ ___ ___	imperfect
20. Most of my classmates are	sweet	___ ___ ___	bitter
21. Most of my teachers are	black	___ ___ ___	white
22. My school is	honest	___ ___ ___	dishonest

23. Most of my classmates are	sad	___	___	___	happy
24. Attending lesson is	happy	___	___	___	sad
25. Doing homework is	cruel	___	___	___	kind
26. Doing homework is	beautiful	___	___	___	ugly
27. Most of my teachers are	honest	___	___	___	dishonest
28. Most of the school subjects are	sad	___	___	___	happy
29. My school is	sweet	___	___	___	bitter
30. Doing homework is	white	___	___	___	black
31. Most of the school subjects are	cruel	___	___	___	kind
32. Attending lesson is	kind	___	___	___	cruel
33. Most of my classmates are	fair	___	___	___	unfair
34. Most of my teachers are	cruel	___	___	___	kind
35. Most of my classmates are	honest	___	___	___	dishonest
36. Most of the school subjects are	honest	___	___	___	dishonest
37. Most of my classmates are	ugly	___	___	___	beautiful
38. Most of my classmates are	imperfect	___	___	___	perfect
39. Most of the school subjects are	fair	___	___	___	unfair
40. Most of my classmates are	cruel	___	___	___	kind
41. Most of my teachers are	sweet	___	___	___	bitter
42. Most of the school subjects are	perfect	___	___	___	imperfect
43. My school is	unfair	___	___	___	fair
44. Most of the school subjects are	beautiful	___	___	___	ugly
45. Attending lesson is	unfair	___	___	___	fair
46. Most of my teachers are	imperfect	___	___	___	perfect
47. My school is	ugly	___	___	___	beautiful
48. Most of the school subjects are	sweet	___	___	___	bitter

49. The average time per day I spend in doing my homework is

1. less than half an hour
2. half an hour to one hour
3. one hour to one and an half hours
4. one and an half hours to two hours
5. more than two hours

_____

APPENDIX VI

Main Test Attitude Scale (Chinese Version)

學校 ☐ 年級 ☐ 歲數 ☐ 性別 ☐ 學號 ☐

本問卷所有資料用電腦處理，作一般性之調查，絕對不會交給教師或學校，各同學請放心依自己意見填寫答案

1.	大多數老師是	公平的	___	___	___	不公平的
2.	迫學校上課是	難看的	___	___	___	美麗的
3.	迫學校上課是	誠實的	___	___	___	虛假的
4.	做功課是	虛假的	___	___	___	誠實的
5.	大多數老師是	美麗的	___	___	___	難看的
6.	迫學校上課是	甜蜜的	___	___	___	痛苦的
7.	大多數老師是令人	憂愁的	___	___	___	快樂的
8.	我的學校是	破爛的	___	___	___	完善的
9	我的學校是	雪白的	___	___	___	污黑的
10.	大多數科目是	污黑的	___	___	___	雪白的
11.	做功課是令人	憂愁的	___	___	___	快樂的
12.	大多數同學是	雪白的	___	___	___	污黑的
13.	做功課是	痛苦的	___	___	___	甜蜜的
14.	做功課是	不公平的	___	___	___	公平的
15.	我的學校是令人	快樂的	___	___	___	憂愁的
16.	迫學校上課是	破爛的	___	___	___	完善的
17.	迫學校上課是	雪白的	___	___	___	污黑的
18.	我的學校是	殘忍的	___	___	___	仁慈的
19.	做功課是	完善的	___	___	___	破爛的
20	大多數同學是	甜蜜的	___	___	___	痛苦的
21	大多數老師是	污黑的	___	___	___	雪白的
22	我的學校是	誠實的	___	___	___	虛假的
23	大多數同學是令人	憂愁的	___	___	___	快樂的
24	迫學校上課是令人	快樂的	___	___	___	憂愁的

25 做功課是……殘忍的 ___ ___ ___ 仁慈的……
26 做功課是……美麗的 ___ ___ ___ 難看的……
27. 大多數老師是……誠實的 ___ ___ ___ 虛假的……
28. 大多數科目是令人……憂愁的 ___ ___ ___ 快樂的…
29. 我的學校是……甜蜜的 ___ ___ ___ 痛苦的……
30. 做功課是……雪白的 ___ ___ ___ 污黑的……
31. 大多數科目是……殘忍的 ___ ___ ___ 仁慈的…
32. 返學校上課是……仁慈的 ___ ___ ___ 殘忍的
33 大多數同學是……公平的 ___ ___ ___ 不公平的…
34. 大多數老師是……殘忍的 ___ ___ ___ 仁慈的……
35. 大多數同學是……誠實的 ___ ___ ___ 虛假的…
36. 大多數科目是……誠實的 ___ ___ ___ 虛假的……
37 大多數同學是……難看的 ___ ___ ___ 美麗的……
38 大多數同學是……破爛的 ___ ___ ___ 完善的…
39. 大多數科目是……公平的 ___ ___ ___ 不公平的…
40 大多數同學是……殘忍的 ___ ___ ___ 仁慈的……
41 大多數老師是……甜蜜的 ___ ___ ___ 痛苦的……
42. 大多數科目是……完善的 ___ ___ ___ 破爛的…
43 我的學校是……不公平的 ___ ___ ___ 公平的…
44 大多數科目是……美麗的 ___ ___ ___ 難看的…
45. 返學校上課是……不公平的 ___ ___ ___ 公平的…
46. 大多數老師是……破爛的 ___ ___ ___ 完善的……
47. 我的學校是……難看的 ___ ___ ___ 美麗的…
48. 大多數科目是……甜蜜的 ___ ___ ___ 痛苦的…

49. 平均來說，我每天做功課的時間要

1. 少于半小時 ___
2. 半小時至一小時 ___
3. 一小時至一小時半 ___
4. 一小時半至二小時 ___
5. 多于二小時 ___